

What Is Claimed Is:

1. A work fixing device comprising:  
plurality of plates, on each plate of said plurality of  
plates a work with a ferromagnetic portion being mounted;  
5 a transporter for endlessly connecting and circulating  
said plurality of plates;  
a magnet fixed to said transporter, said magnet fixing  
the work, which is transported by the transporter, through  
magnetic force on each plate of said plurality of plates; and  
10 a nonmagnetic clearance holder for separating the magnet  
and the work from each other at a predetermined interval.
2. The work fixing device as claimed in claim 1,  
wherein said plurality of plates are nonmagnetic, and said  
clearance holder is said plurality of plates themselves.
- 15 3. The work fixing device as claimed in claim 1,  
wherein said clearance holder includes a clearance between  
each plate of said plurality of plates and the magnet.
4. The work fixing device as claimed in claim 3,  
wherein a slider is inserted between each plate of said  
20 plurality of plates and the magnet.
5. A work fixing device comprising:  
plurality of plates, on each plate of said plurality of  
plates a work with a ferromagnetic portion being mounted,  
each plate of said plurality of plates having a nonmagnetic  
25 portion and magnetic portions at both ends of the nonmagnetic  
portion;  
a transporter for endlessly connecting and circulating  
said plurality of plates;  
a magnet fixed to said transporter, said magnet fixing  
30 the work, which is transported by the transporter, through  
magnetic force on each plate of said plurality of plates; and  
a nonmagnetic clearance holder for separating the magnet  
and the work from each other at a predetermined interval.
6. The work fixing device as claimed in claim 5,  
35 wherein said magnet is accommodated in a C-shaped base having

an opening at a position opposite to the nonmagnetic portion of each plate of said plurality of plates, and said nonmagnetic clearance holder includes a clearance between the C-shaped base and each plate of said plurality of plates.

5           7. The work fixing device as claimed in claim 6, wherein a slider is inserted between each plate of said plurality of plates and the magnet.

8. The work fixing device as claimed in claim 6, wherein in said C-shaped base including the opening is  
10           mounted a nonmagnetic magnet fixing member for fixing the magnet in the C-shaped base.

9. The work fixing device as claimed in claim 5, wherein said nonmagnetic portion of each plate of said plurality of plates is a space.

15           10. The work fixing device as claimed in claim 1, wherein said magnet is a permanent magnet.